



# CV Laetitia GE Wilkins

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Born February 11th 1985 in Chur, Switzerland. Married to Donny Joe Wilkins. One daughter Linnea.

## Education

### Doctoral Thesis

9/2010 - present University of Lausanne, Switzerland  
Supervisors Prof. Claus Wedekind and Dr. Luca Fumagalli

Recipient of the FBM fellowship 2010. PhD student and assistant in Prof. Claus Wedekind's group at the Ecology and Evolution Department (DEE), University of Lausanne, Switzerland, under co-supervision of Dr. Luca Fumagalli. Member of the StarOmics and the Population Genomics program - two programs with the aims of teaching doctoral students how to analyze large-scale genomic data and more importantly how to think in terms of large scale. My PhD project includes the identification and characterization of typical microbial communities of model salmonids using next-generation sequencing techniques; testing the roles of specific microbial communities and of particular host factors; and analyzing the effects of temperature on the interaction between microbial communities and host.

### MSc in Evolutionary Genetics

9/2008 - 6/2010 Stockholm University, Sweden, *Average Grade: A (scale: A-F)*  
23.07.2011 Master thesis  
Title 'Female mating preferences and the MHC in humpback whales'  
Cloning and sequencing of MHC genes in humpback whales for data generation. Applied simulation study, using R, ms and seq-gen. A second project about isolation with migration in humpback whales in the North Atlantic Ocean using neutral genetic markers with a coalescent-based simulation approach.  
Supervisors Prof. Per J. Palsbøll

### BSc in Biology - majoring in Population Genetics

8/2005 - 6/2008 University of Berne, Switzerland, *Durchschnittsnote: 5.6 (scale: 1-6)*  
12.6.2008 Bachelor thesis  
Title 'Y-chromosomal phylogenies of *Microtus arvalis*'  
Investigation of the Y- and X-chromosomal phylogeography using my own sequencing data together with existing data.  
Supervisors Prof. Laurent Excoffier and Dr. Gerald Heckel

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## Working Experience

Alpine Environment	Swiss alp summer job 2004 (Naustgel, Val Sumvitg, Grisons): producing 14 tons of cheese, caring for 120 cows and retaining the alpine environment.
Biopsies	Internship at the Provincetown Center for Coastal Studies, Cape Cod MA, USA in summer 2010 under supervision of Dr. Jooke Robbins and David Mattila. Collection of behavioral and demographic data about humpback whales, <i>Megaptera novaeangliae</i> , in the Gulf of Maine. This included crossbow biopsy sampling and genetic analyses during a three week excursion on a boat into the Bay of Fundy, Canada, for most of the data acquisition.
Novartis	Internship at the Department of Molecular Diagnostics (MDx) in Anthony Rossini's group. Statistical analysis of different genomic datasets on lung cancer and review about what is absolutely important for a successful collaboration.
Workshops taken	<ul style="list-style-type: none"><li>- Evolutionary Workshop in the alps in Arolla, Switzerland, June 20th- 26th 2010, with Tad Kawecki, Jérôme Goudet, John Pannell and David Haig.</li><li>- Host-associated Microbiota, September 12th- 14th 2012, with Dieter Ebert, Daniel Huson, Rob Knight, Qi Weihong, and Luke Ursell at Basel University.</li><li>- High Performance Computing (HPC) in Life Sciences on HPC computing and storage infrastructure, May 11th 2012, with Heinz Stockinger and Vassilios Ioannidis at the CIG, Lausanne.</li></ul>
Conference Organization	Organization of a conference on 'Population Genomics' taking place in the Swiss Alps. The invited guests included John Pool, Emilia Huerta-Sanchez, Walter Jetz, Per Palsbøll, Jeff Jensen, and Walter Salzburger, March 2012.
Teaching	Highschool level at Gymnasium Kloster Disentis in May 2009 with emphasis on the subject 'Water and Genetics' organized by the principal Geneviève Appenzeller-Combe. At the University level my teaching includes ZOOLOGY for first year BSc students, COMPUTATIONAL POPULATION GENETICS for second year BSc students, CONSERVATION BIOLOGY for third year BSc students, and MOLECULAR POPULATION GENETICS for MSc students.
Supervision of Master students	<ul style="list-style-type: none"><li>- Aude Rogivue, 'Factors influencing the spawning success of grayling <i>Thymallus thymallus</i> in a Swiss alpine river', 2012/13.</li><li>- Zoé Daeppen, 'Spawn fast, die early - reproductive strategies of grayling <i>Thymallus thymallus</i> in the river Inn', 2013/14 (both 1 year projects)</li></ul>

Posters presented	Biennial Conference on the Biology of Marine Mammals, Québec City, Canada, 2010 and Evolution conference 2013 in Snowbird, Utah, USA.
Talks given	<ul style="list-style-type: none"> <li>- 'Microbial communities on salmonid eggs' at Metagenomics symposium in May 2011 at the University of Neuchâtel, Switzerland and at Population Genomics symposium in January 2014 at the University of Lausanne.</li> <li>- 'MHC class I expression in whitefish embryos' at Evolution conference in Snowbird, Utah, USA in July 2013</li> </ul>
Invited Talks given	'MHC and female mating preferences in humpback whales' at AWI Wattenmeerstation Sylt, Germany, at IFM Geomar in Kiel, Germany, and at ETH in Zürich, Switzerland, all in May 2010.
Collaborations	Gaëtan Glauser and Armelle Vallat at Neuchâtel University, Laurent Farinelli at FASTER, and Pierre Taberlet at the University of Grenoble, France.

## Skills

General	<p>Some of my most useful skills in academia include:</p> <p>Fluent in Swiss-German, German, English (TOEFL 112 of 120 points in November 2009 and GRE 490 verbal, 660 math in November 2007), Swedish, Rätoromontsch, and basics in French (Matura/High school diploma). Applied programming and statistical skills in R (Bioconductor), basic skills in perl. Sequencing, cloning, qPCR, and library preparation for NGS (454 and illumina), in-vitro fertilization and rearing of salmonids, LM, GLM, GLMM, and QIIME data analysis, project management, supervision of students at various levels.</p>
Programing	R, Perl, bash-scripting, and LaTeX

## References

Claus Wedekind	Department of Ecology and Evolution, Biophore, University of Lausanne, 1015 Lausanne, Switzerland. phone: +41 (0)21 692 42 50, email: claus.wedekind@unil.ch
Per Palsbøll	Marine Evolution and Conservation, Centre for Ecological and Evolutionary Studies, University of Groningen, PO Box 11103, NL-9700 AG Groningen, The Netherlands. phone: +31 (0)50 363 9882, email: p.j.palsboll@rug.nl
Anthony Rossini	Computable Statistical Research and Practice, Department of Molecular Diagnostics and Personalized Medicine (MDx), Novartis Pharma AG, CH-4056 Basel. phone: +41 (0)61 324 1111, email: anthony.rossini@novartis.com

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## Publications

Clark\*, E. S., Wilkins\*, L. G. E. and Wedekind, C. 2013. MHC class I expression dependent on bacterial infection and parental factors in whitefish embryos (Salmonidae). *Molecular Ecology* 22: 5256-5269. (\* shared first authorship)  
<http://onlinelibrary.wiley.com/doi/10.1111/mec.12457/abstract>

Lausanne, March 24, 2014